



SINCE 1941

MuMETAL®  
Co-NETIC®  
NETIC®  
INTER-8®



ISO 9001:2008

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# MAGNETIC SHIELD CORP.

## CO-NETIC® AA Sheet

### DESCRIPTION

CO-NETIC® is an unoriented 80% nickel-iron-molybdenum alloy which offers a saturation induction of about 0.75T (7500 G), low coercive forces, and extremely high initial permeability as well as maximum permeability with minimum hysteresis losses. CO-NETIC is suitable for shielding sensitive electronic equipment against low strength, low frequency magnetic fields.

### SPECIFICATIONS

CO-NETIC® alloy meets ASTM-A-753 Alloy 4, IEC 60404-8-6, DIN 17745, DIN 17405, and military specification MIL-N-14411 Composition 1.

TYPICAL CHEMICAL COMPOSITION (WEIGHT %)				
Ni	Mo	Fe	Mn	Si
80	5.0	15.0	0.3 – 0.5	0.1 – 0.4

DC MAGNETIC PROPERTIES* (typical values of a Perfection Annealed ring sample)	
Saturation Induction (Bs)	7500 G [0.75 T]
Coercivity (Hc)	.005 Oe [.4 A/m]
Permeability Max	600,000
Permeability at .005 Oe [.4 A/m]	470,000

PHYSICAL PROPERTIES* (typical values)	
Density	.316 lb/in <sup>3</sup> [8.74 g/cm <sup>3</sup> ]
Curie Temperature	788°F [420°C]
Electrical Resistivity	0.6 x 10 <sup>-6</sup> Ohm m
Thermal Expansion	12 μm.m-1.°C-1
Thermal Conductivity	19 W.m-1.°C
Specific Heat	460 J.Kg-1.°C
Melting Temperature	2642°F [1450°C]

MECHANICAL PROPERTIES* (typical values on stress annealed product)	
Hardness (HV)	160
Tensile strength (MPa)	650
Yield strength (MPa)	280
Elongation in 2" (%)	35

\*Note: All product data given in this data sheet are typical values based on the experience of the melt source. They are not part of material specification and do not guarantee particular characteristics.